Proposal for a Canadian Historical GIS Network

CARTO 2013

Marcel Fortin
Byron Moldofsky
University of Toronto
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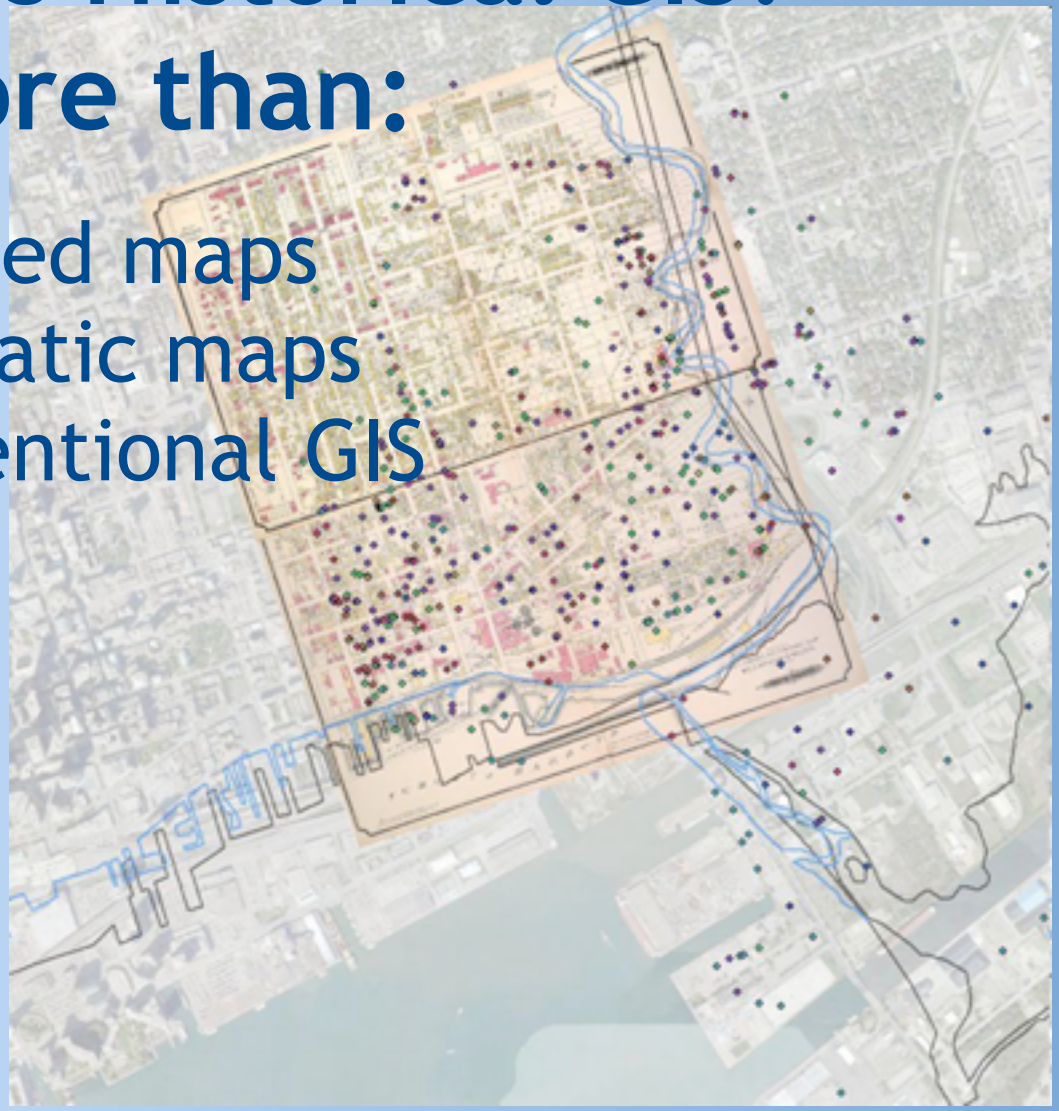
What is Historical GIS? it's more than:

- Scanned maps
- Thematic maps
- Conventional GIS



HGIS is

"...new knowledge and new scholarship about the geographies of the past."
Ian Gregory, 2008

HGIS is

GIS resources designed for doing history

- Time, space, data, documentation, visualization

But…

DANFORTH
BELL ST.
CRAWFORD
MILL ST.
MUNROE
HAMILTON
DON TERRACE
RIVER
The North City
HARBO

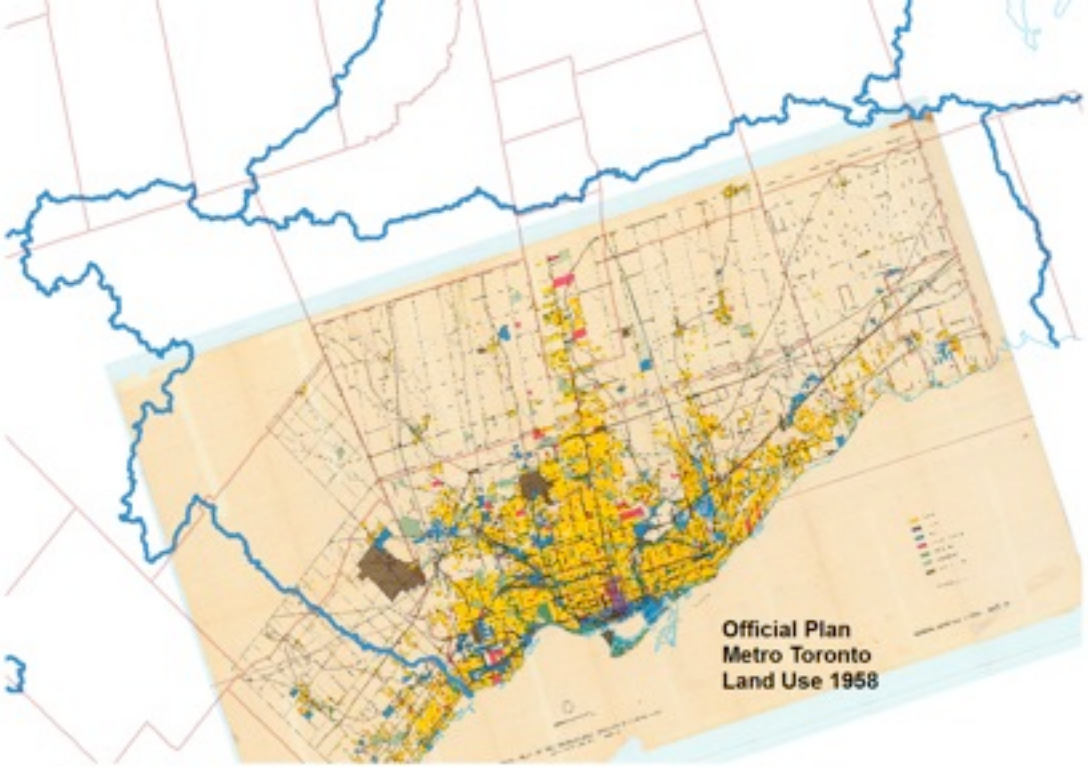
Historical GIS question?

... suggested you may have datasets for the Greater Toronto area relevant to research I am undertaking on hydrologic response to land use change and associated aquatic biodiversity decline. I am interested in GIS files that provide current and historic land use information in the Humber and Don watersheds...

Data on road density or land use change (e.g. proportions of forested, wetland, agricultural, residential, industrial, etc) would be very relevant.

I am working with a hydrologic-climatic dataset that spans 1969 to 2010. Thus land use and/or road density information dating from the 1950's to current day is of interest.

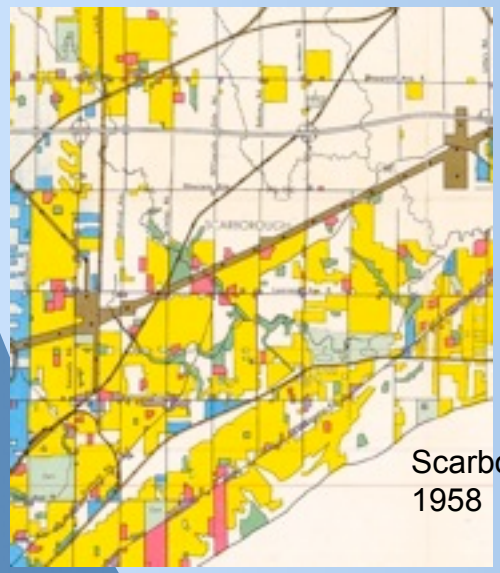
Historical Land use from Official Plans



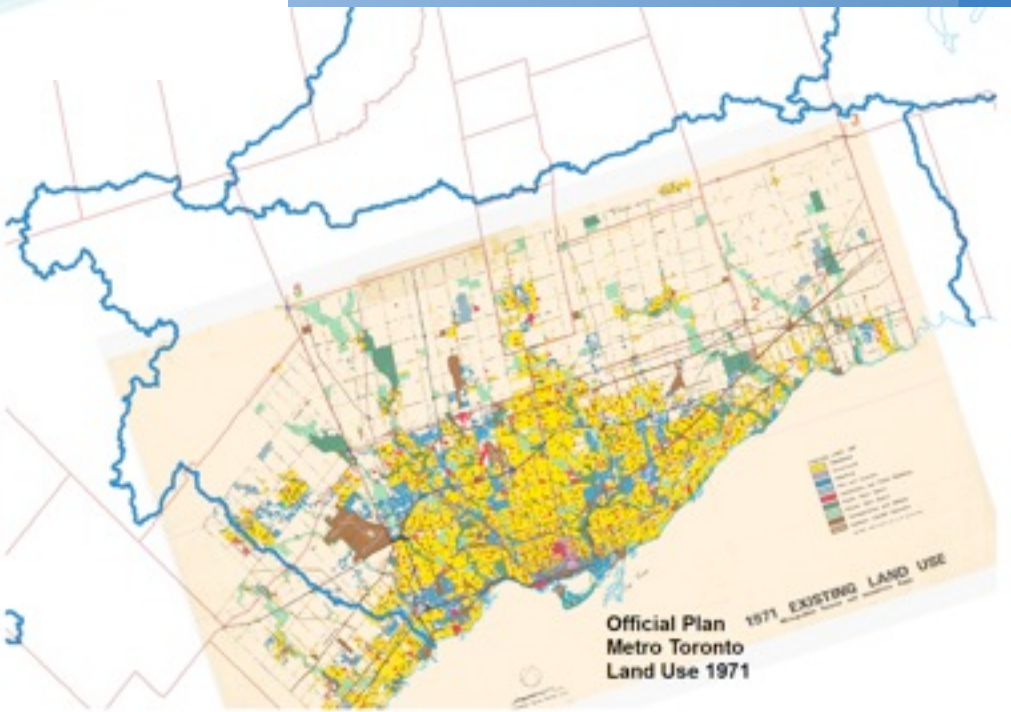
EXISTING LAND USE

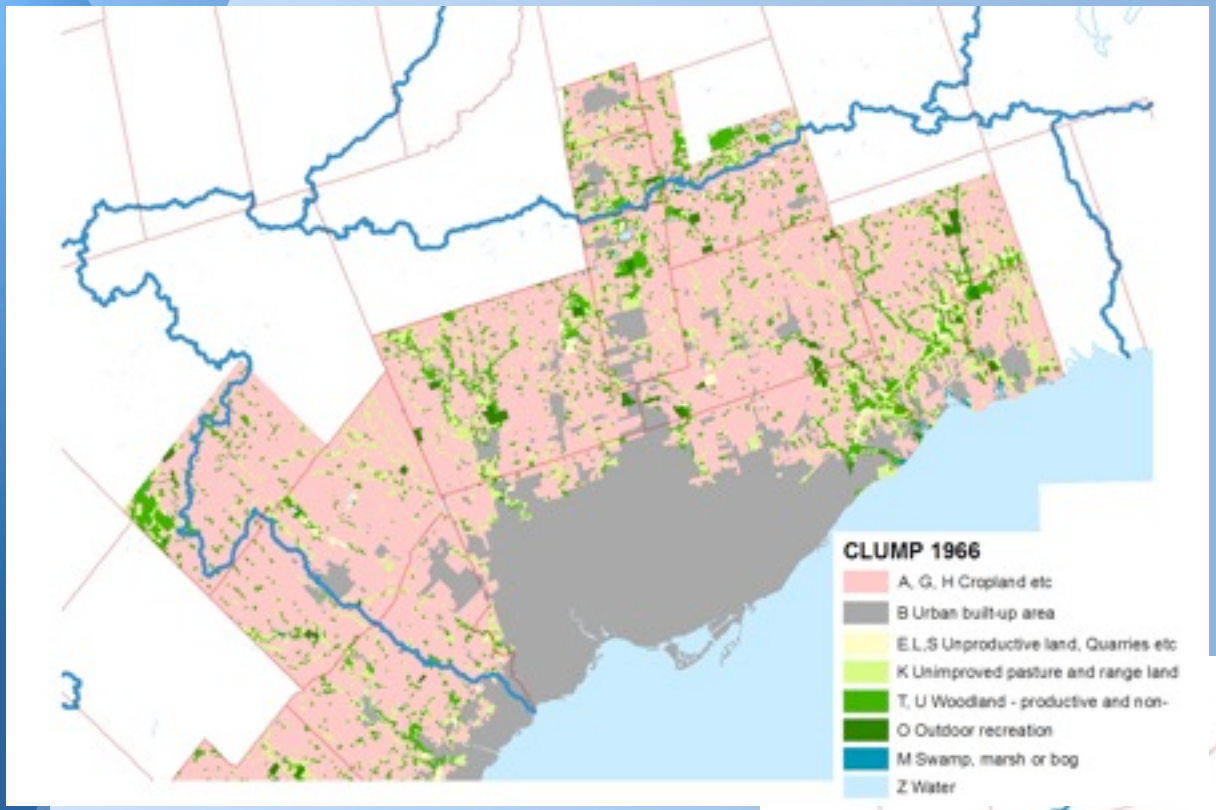
- Residential
- Commercial
- Industrial
- Pits and Quarries
- Institutions and Public Buildings
- Public Open Space
- Private Open Space
- Transportation and Utilities
- Sanitary Landfill Operation

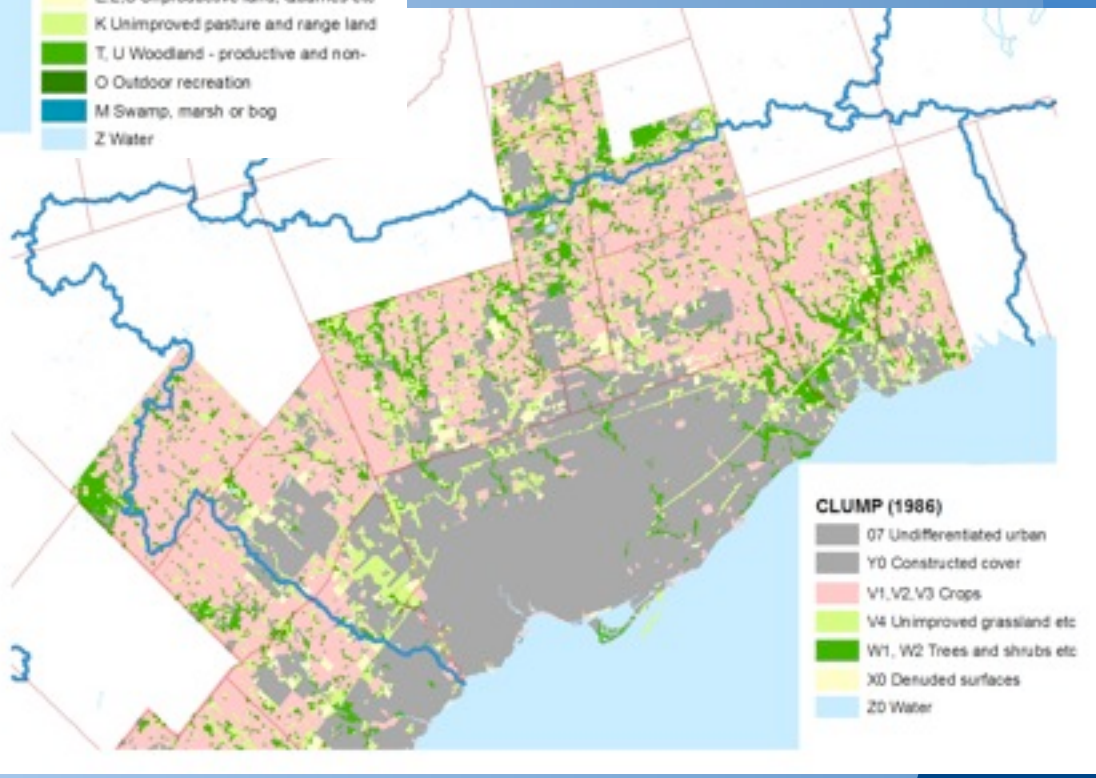
SOURCE: Field survey and aerial photography



Scarborough
1958

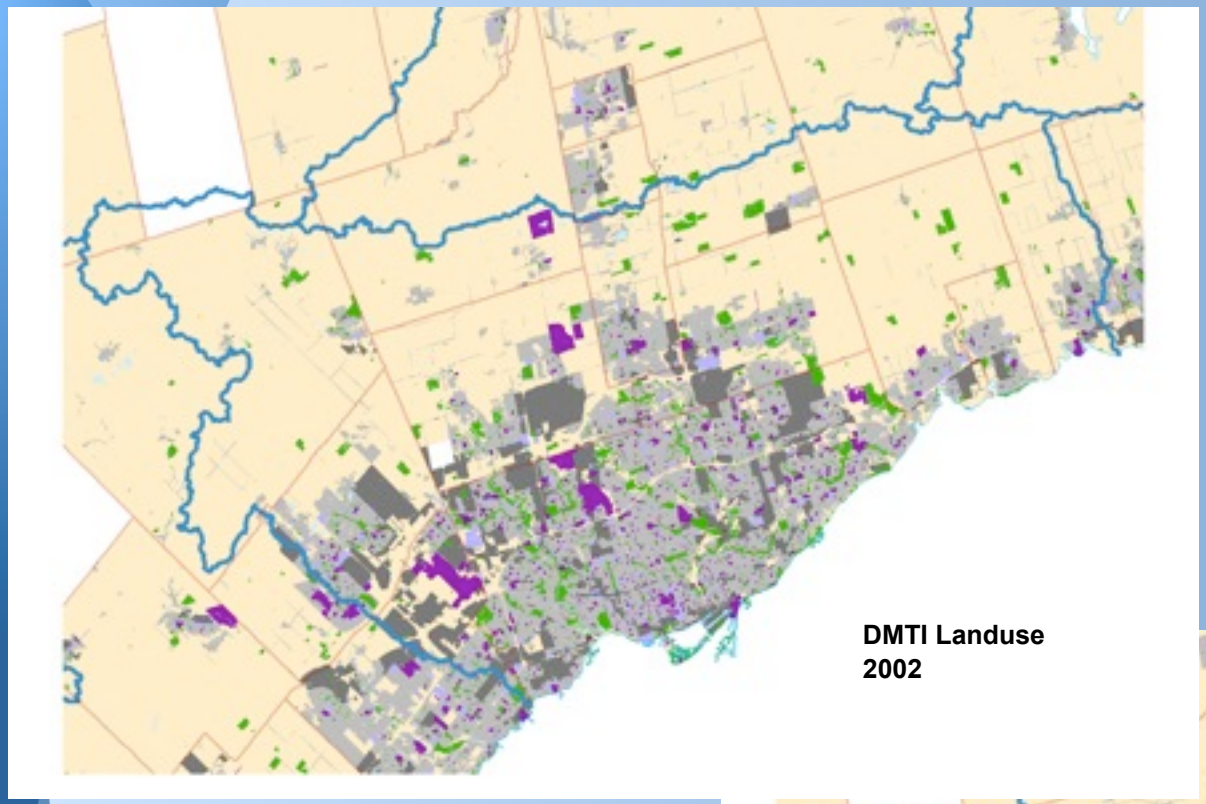






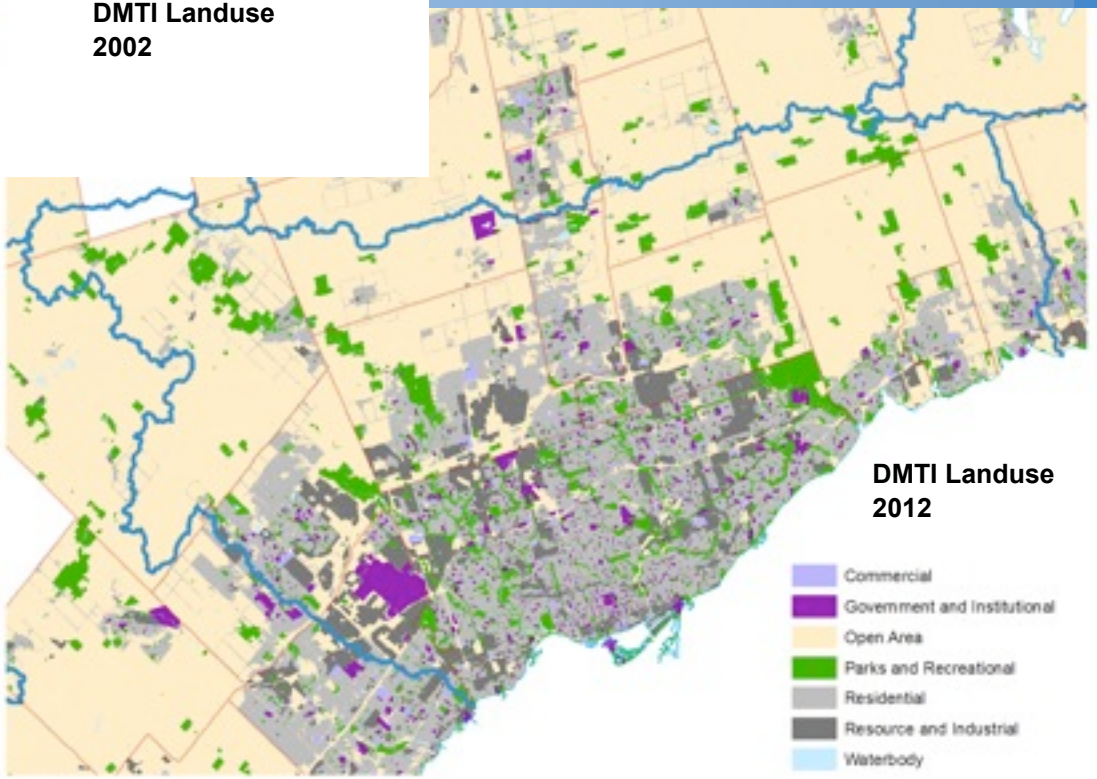
CLUMP
Canada Land Use Monitoring Program

Methodological changes after 1981



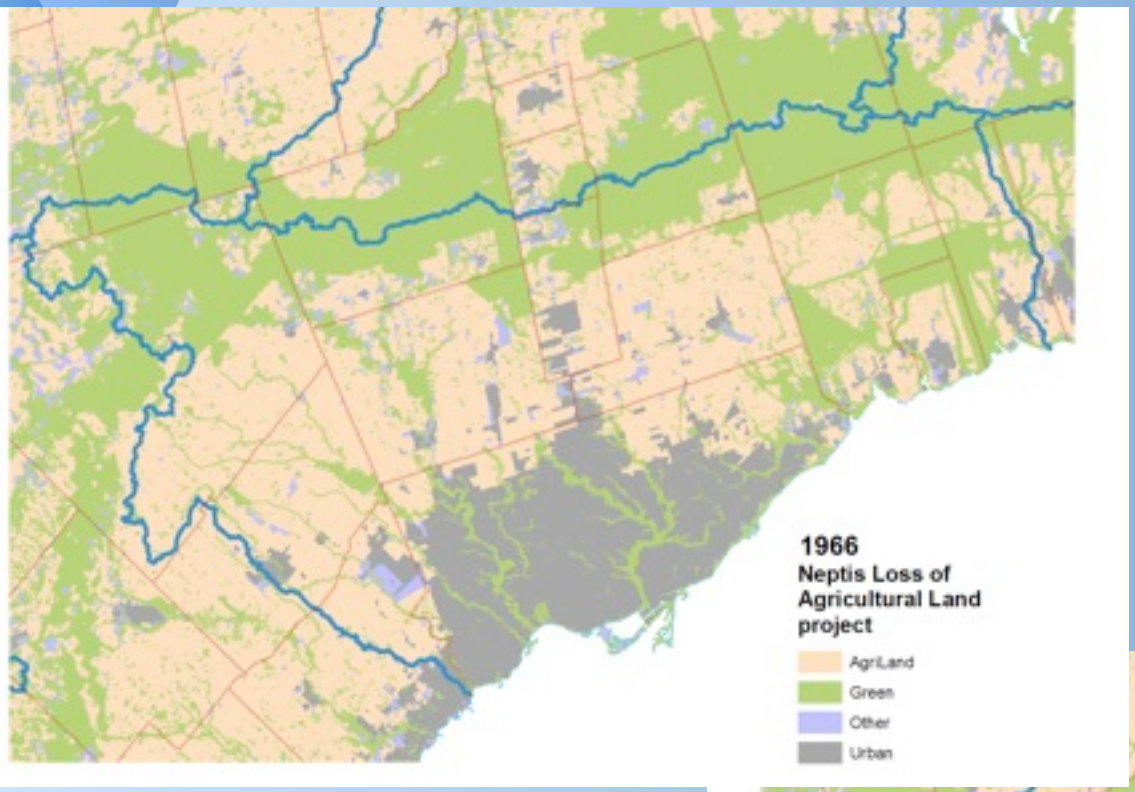
DMTI Landuse
2002

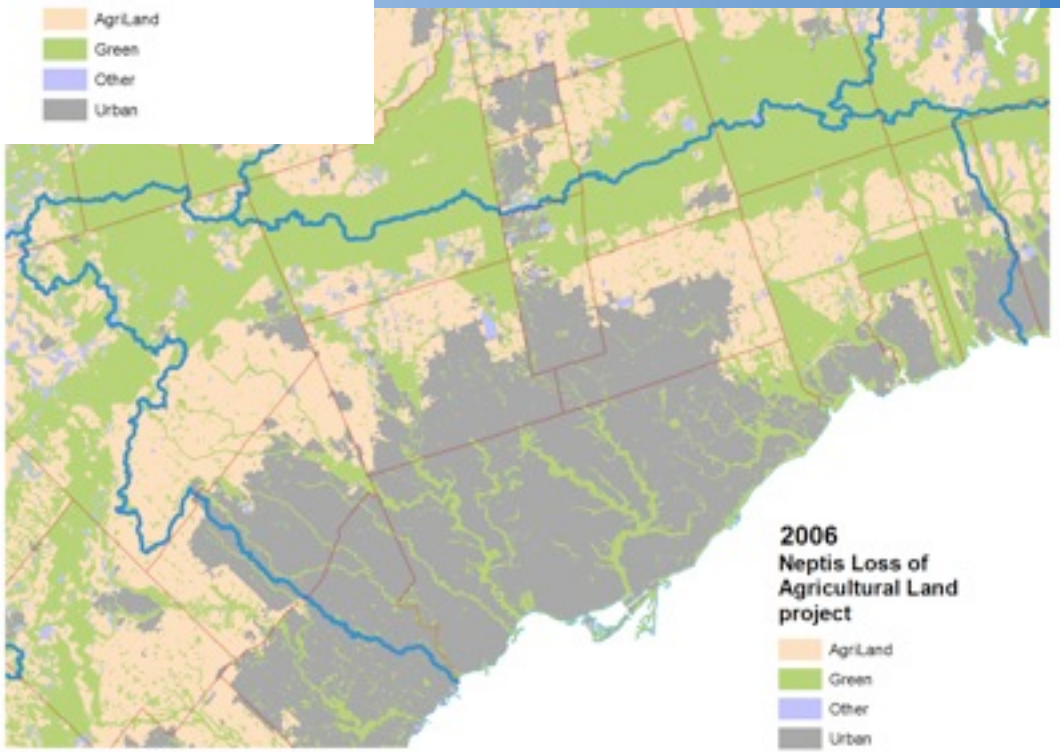
Landuse from DMTI or other commercial data provider



Remote sensed imagery and analysis

Project-based research results





CUrLUS Canadian Urban Land Use Survey

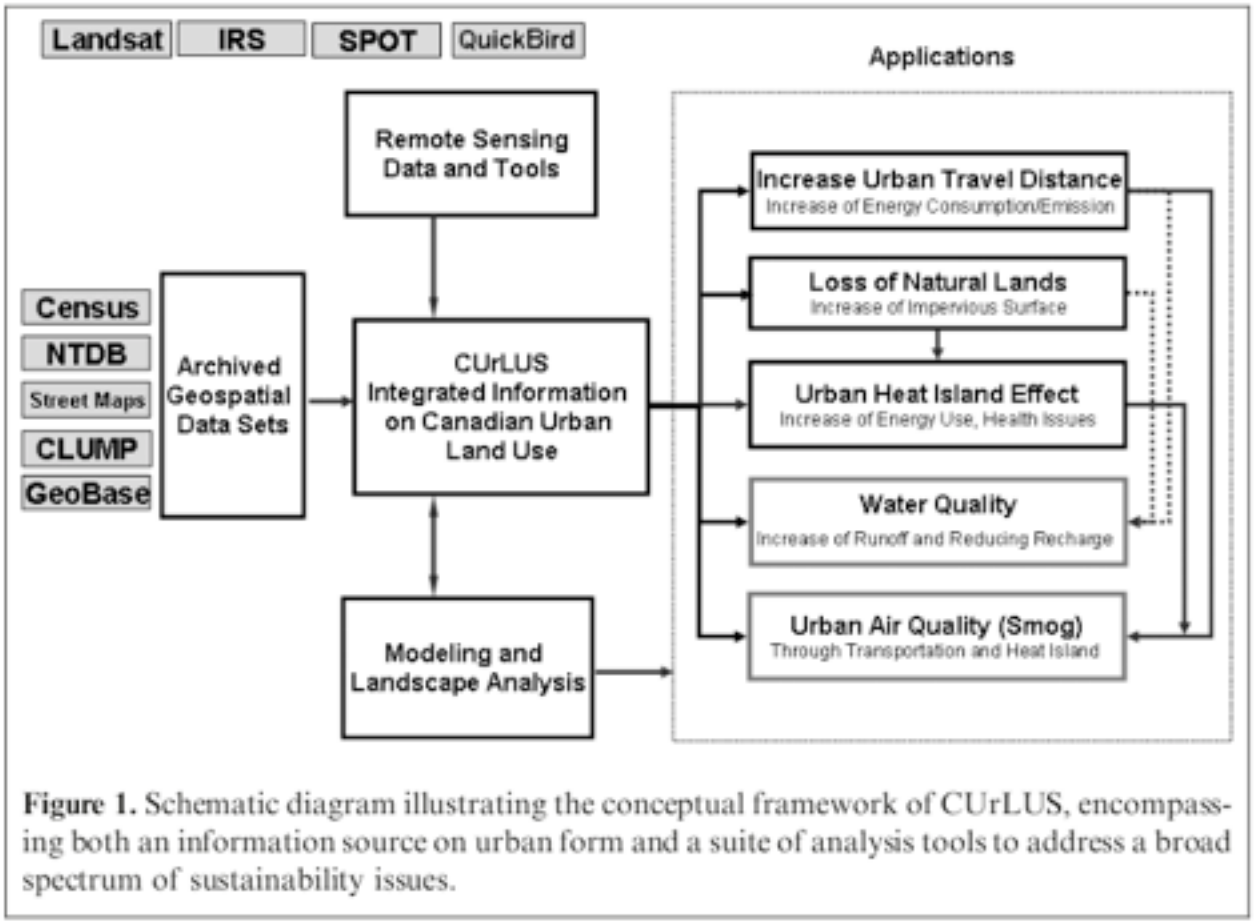
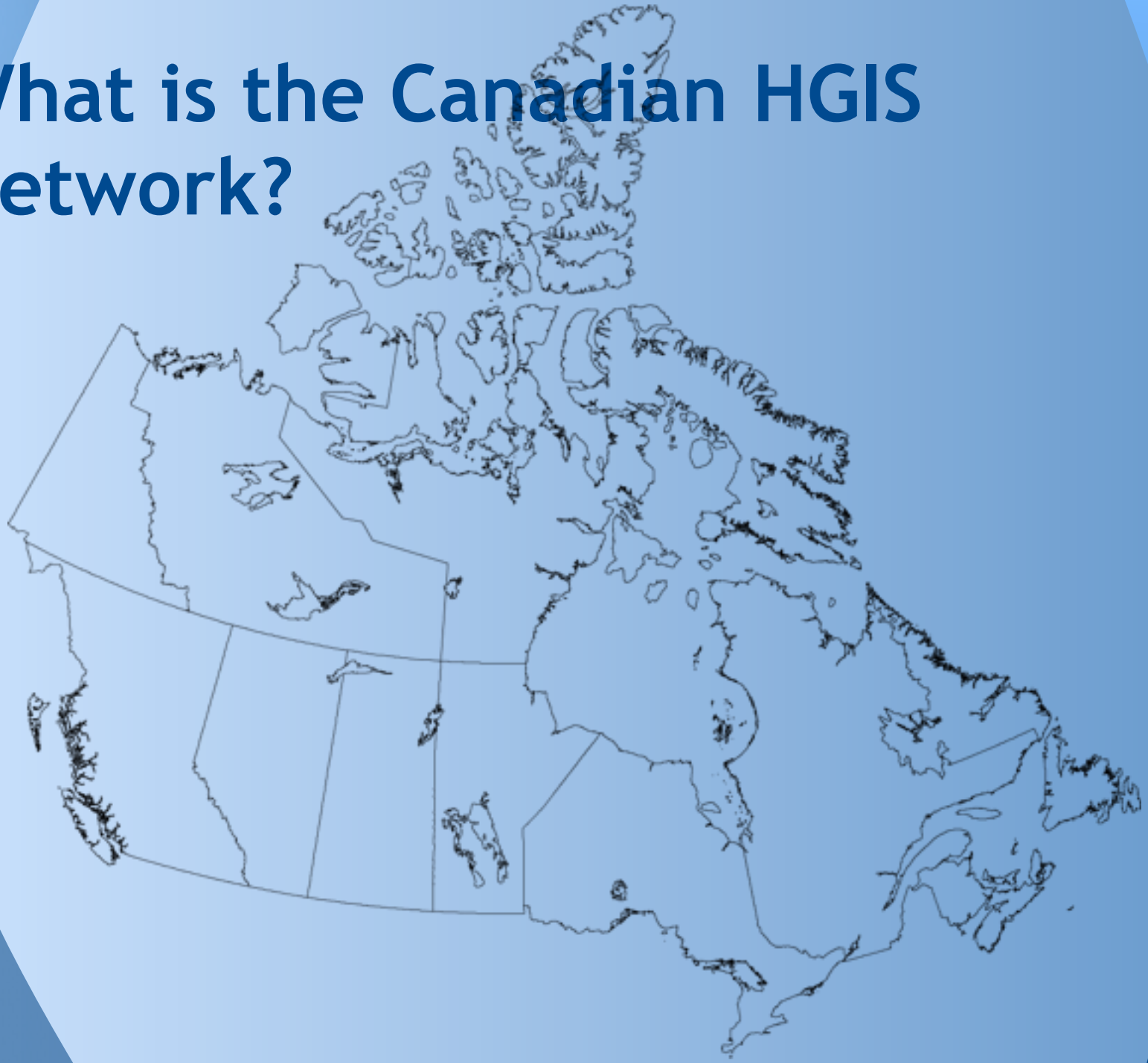


Figure 1. Schematic diagram illustrating the conceptual framework of CUrLUS, encompassing both an information source on urban form and a suite of analysis tools to address a broad spectrum of sustainability issues.

Concepts and application of the Canadian Urban Land Use Survey
Can. J. Remote Sensing, Vol. 36, No. 3, pp. 224-235, 2010
Y. Zhang, B. Guindon, K. Sun CCRS/NRCan

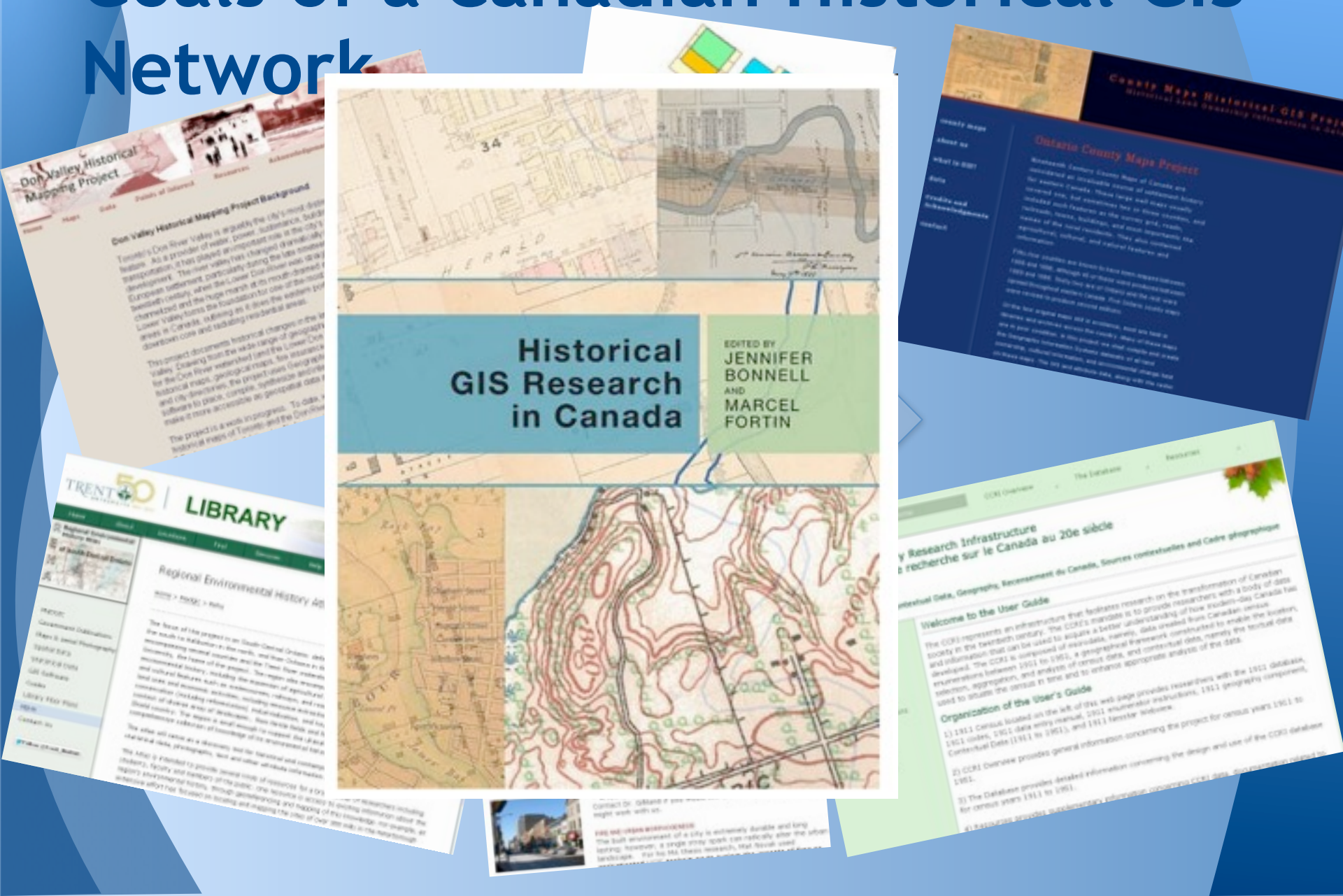
What is the Canadian HGIS Network?



Goals of a Canadian Historical GIS Network?

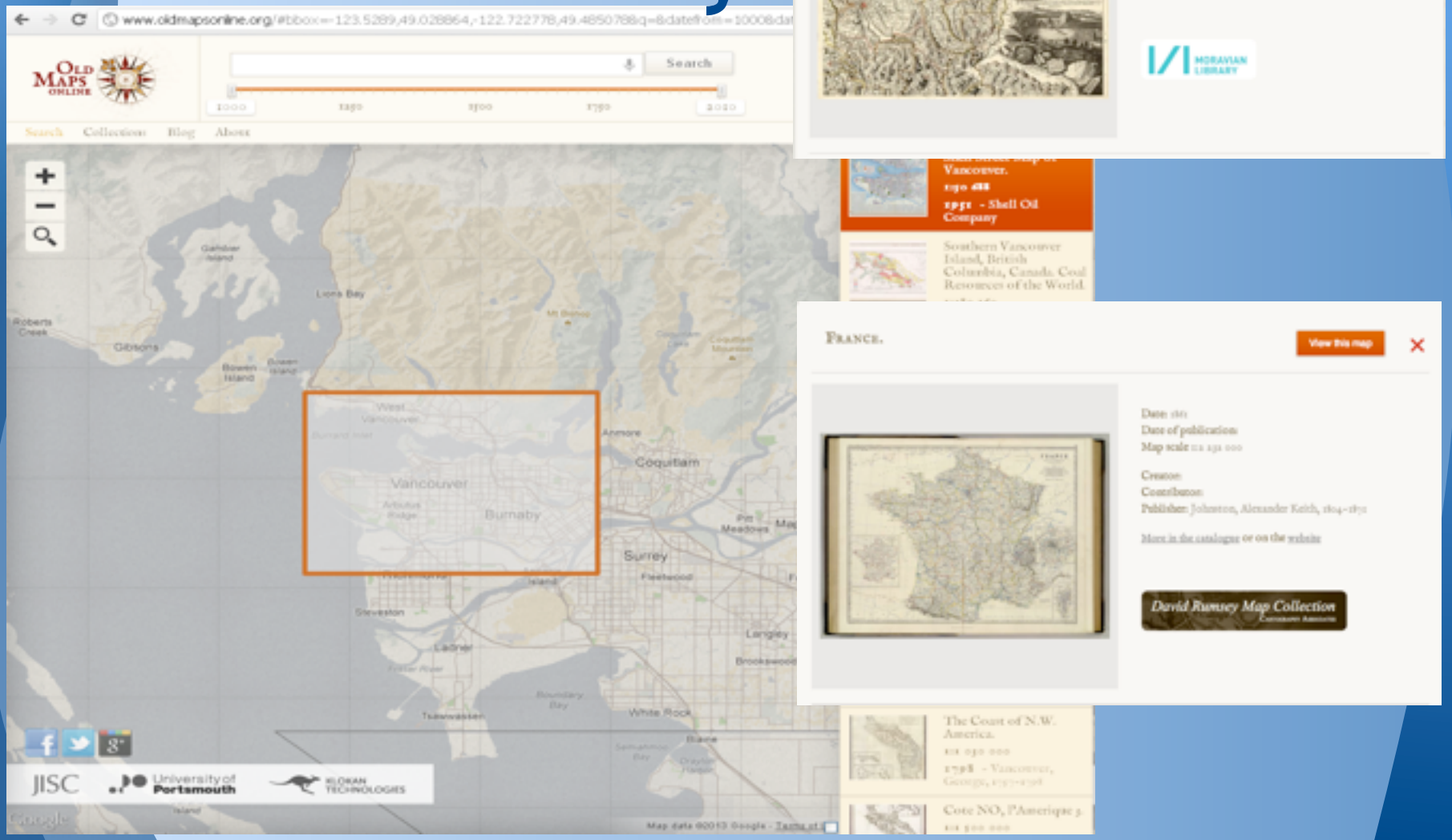
- enable research and communication (between researchers and public)
- share resources
- avoid duplication / “re-digitizing the wheel”

Goals of a Canadian Historical GIS Network



Shared Data discovery tools

Shared Discovery tools…



Tying in existing systems

Standards

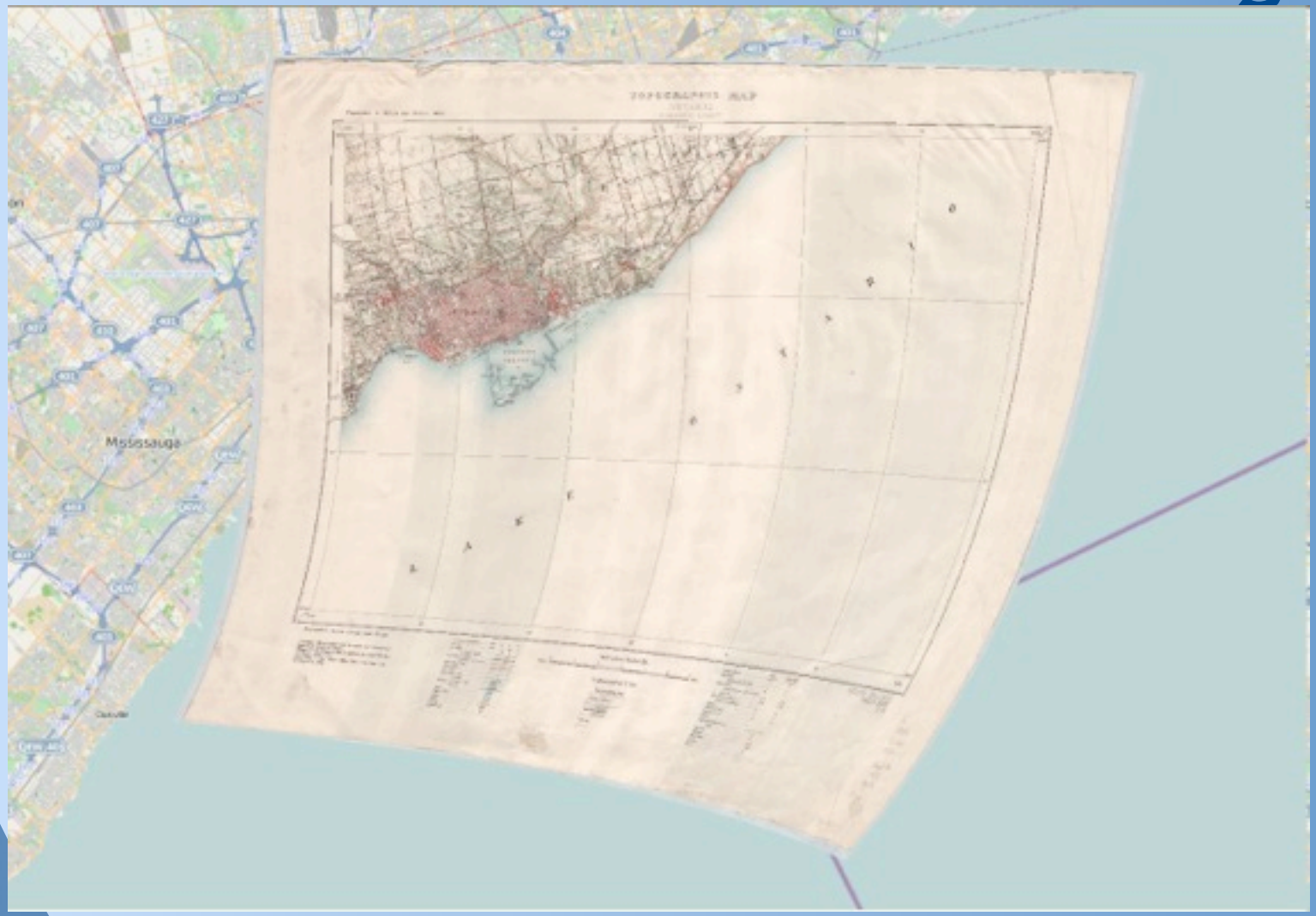
www.opengeospatial.org
OGC
Making location count.
Have an idea?
INSPIRE
What is the OGC?
Home
Standards
Programs
Participate
News & Events
About OGC
Member Login
Search
Geospatial and location standards for:
Aviation
Built Environment & 3D
Business Intelligence
Defense & Intelligence
Emergency Response & Disaster Management
Geosciences & Environment
Government & Spatial Data Infrastructure
Mobile Internet & Location Services
Sensor Webs
University & Research
Earth Observation
Analysis
Crowdsourcing
Navigation
CAD
BIM
Open Source
GIS
Proximity
Global
Place
Spatial Policy
Open
Points of Interest
Where
Monitoring
Location
Hydrology
Map
Sensor Web
Linked Data
Geoweb
Interoperability
Share
Open Data
Shared Understanding
Geosemantics
Information Integration
Time
Planning
SOS
Geosynchronization
Climate
GPS
Indoor/Outdoor
Metadata
Data Quality
Weather
Alerts
Situational Awareness
Real Time
Visualization
Home
Contact Us
Search this Site
Site Map
Join OGC LinkedIn
Follow OGC on Twitter
RSS Feeds
OGC Member Portal
OGC Network
OGC Compliance Testing
Upcoming Events

Standards - Metadata

Standards - conversion/ reconstitution

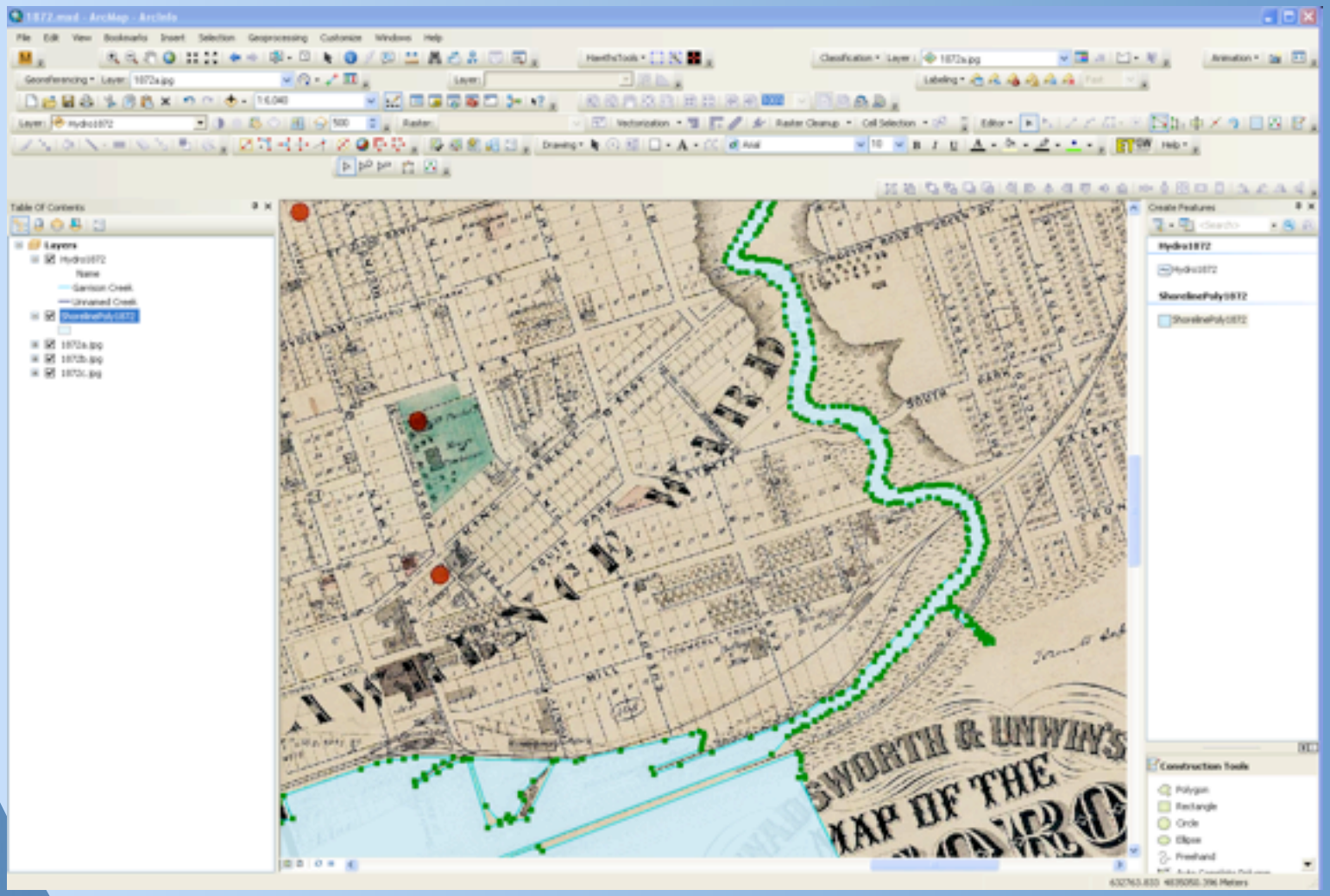
Standards - Licensing

Best Practices - Georeferencing

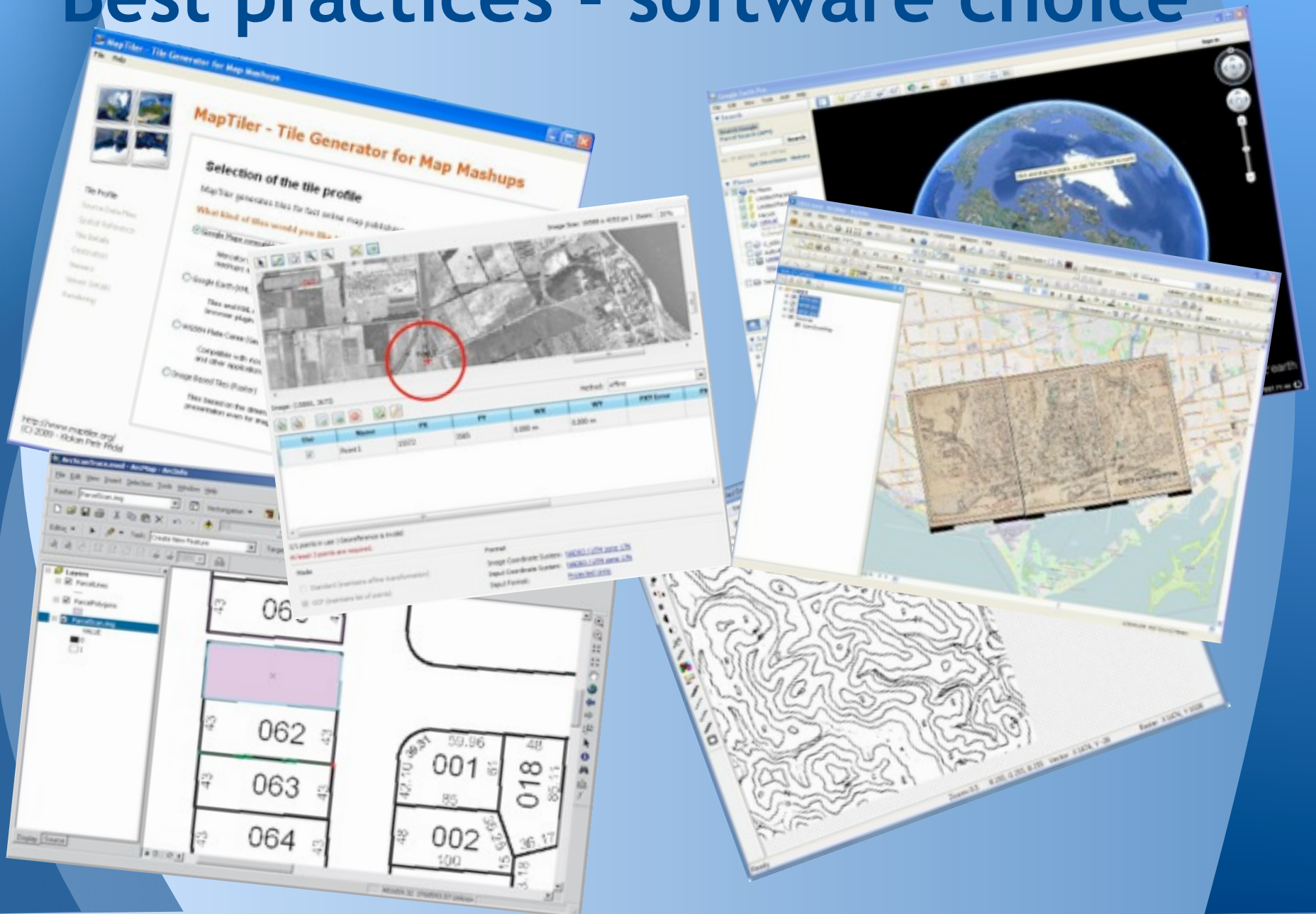


Best practices - mosaicing

Best practices - vectorization



Best practices - software choice



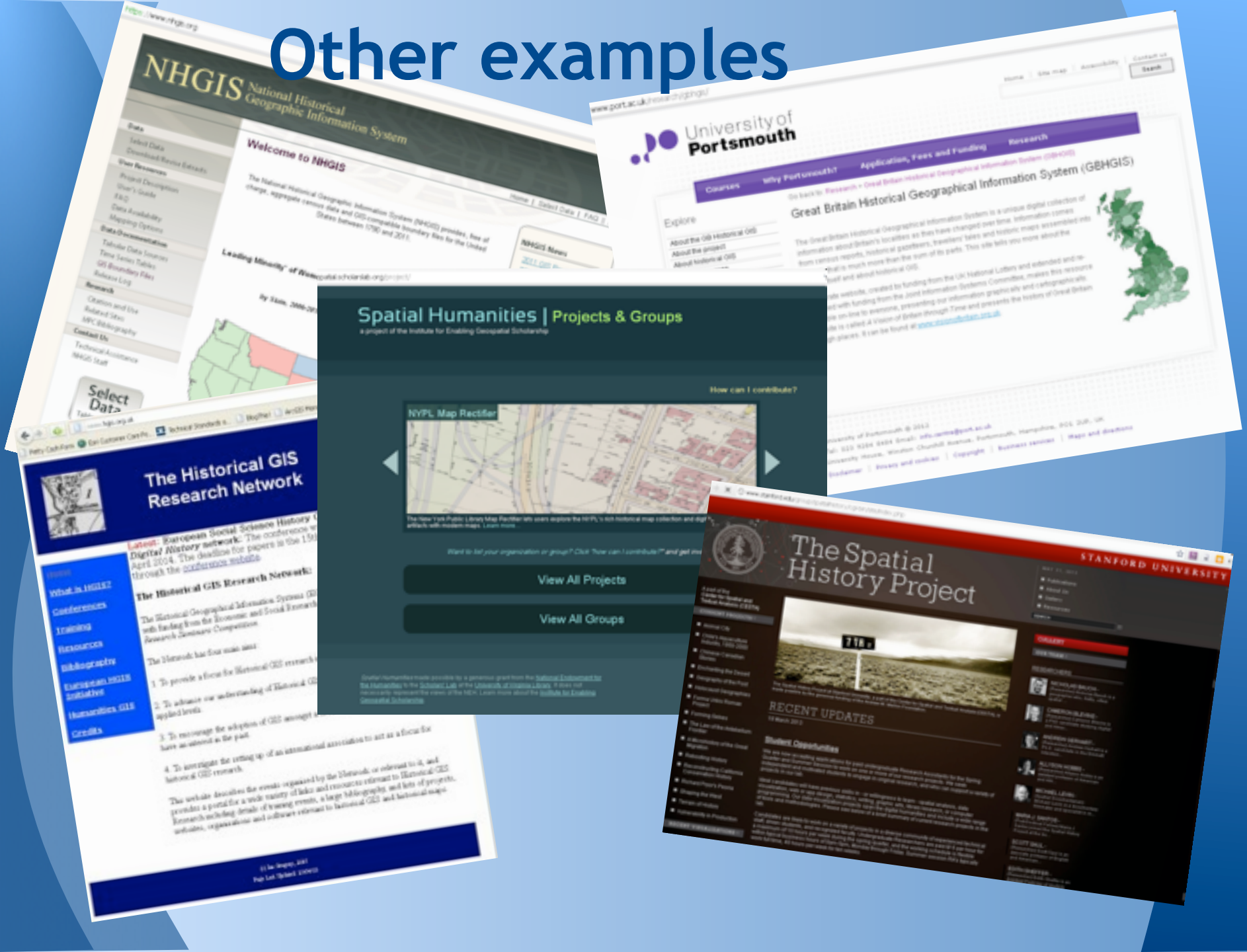
Project data dissemination fo "Orphan" data, "lost" and forgotten

Data Curation?

Other Goals and Objectives

- Create a community
- Foster Conversations
- Prevent duplication
- Promote Literacy
- Build teaching tools

Other examples



Next steps

- Community creation (librarians, archivists, historians, geographers, cartographers, etc.)
- Assembly of collaborators (pitching in)
- Discussion of terms of reference

Next steps - collaborator decisions

- data portal?
- discovery?
- data archive?
- best practices / knowledge base?
- data creation / enhancement?

Next Steps

- Funding
  - SSHRC - Partnerships/Dev't Program?
  - SSHRC - Connections Program?

    "Guidelines and support for tools for research and research-related activities are under development, to be announced during fiscal year 2012-13."
  - Canadian Foundation for Innovation (CFI) - Research Infrastructure Development?
  - Joint applications with Partners?

Potential collaboration / partnerships?

- NRCan
- Statistics Canada
- Provincial Bodies
- NiCHE
- Scholars Portal
- LAC

Canadian Historical GIS so far

hgis-sigh-l@listserv.utoronto.ca

subscribe by sending email to:
listserv@listserv.utoronto.ca

“subscribe hgis-sigh-l
yourmail@youraddress.ca
Firstname Lastname”

Canadian Historical GIS so far

http://www.hgis-sigh.ca

What's missing?